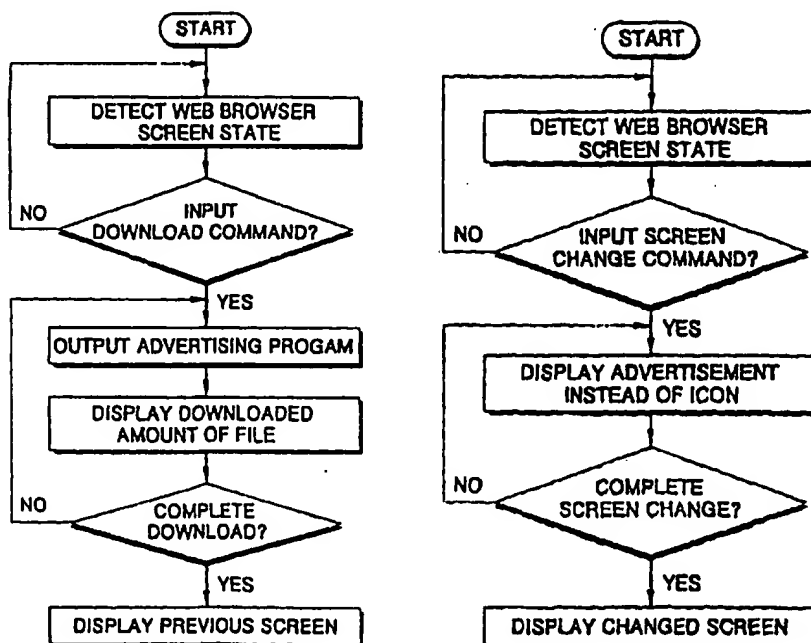




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> PCT/KR00/00370 <b>(22) International Filing Date:</b> 20 April 2000 (20.04.00) <b>(30) Priority Data:</b> 1999/14113      20 April 1999 (20.04.99)      KR <b>(71)(72) Applicant and Inventor:</b> JOO, Jin-Yong [KR/KR]; 201 Artvilla 586 Yangji-dong, Sujeong-ku, Seongnam-city, Kyonggi-do 461-250 (KR). <b>(74) Agents:</b> JOHN, Kwan-Chool et al.; Pedison International Patent and Law Office, 824-28, Yoksam-dong, Kangnam-gu, Seoul 135-080 (KR).		<b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> <i>In English translation (filed in Korean).</i>

(54) Title: ADVERTISING SYSTEMS AND METHODS USING INTERVAL



(57) Abstract

The present invention is related to an advertising method using internet e-mail and chatting window which involves an advertisement in e-mail or chatting window, and compensates the person for seeing the advertisement.

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## ADVERTISING SYSTEMS AND METHODS USING INTERVAL

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

5           The present invention relates to advertising systems and methods using interval, in more particular, to advertising systems and methods using interval on the Internet, which display an advertisement provided by a specific advertiser in the interval during which a data file is downloaded from an opened data source or a specific company's data source which exist on the Internet or a wet page is changed according to hypertext  
10   function on a web browser, thereby promoting advertising effect using the Internet. .

#### 2. Description of the Related Art

          With the popularization of Internet, the number of netizens rapidly increases and advertising market targeting them is being extended. In examples of advertisements using the Internet, there is a case that when a netizen clicks on a logo  
15   or banner including an advertisement of a specific company the netizen is paid a predetermined charge for viewing the advertisement in proportional to the number of times of clicking on the advertisement. Further, there is a service providing a free electronic mail account or home page to Internet users for seeing advertisements. Moreover, there are many web sites providing free files to netizens for viewing  
20   advertisements displayed on parts of their home pages. In case of download of files, especially, with clicking on a file download button, there is displayed on the screen of a web page a window which indicates the downloading state at a part of the screen using a percentage sign or a bar graph, to allow the interval caused by the download to be able to be measured.

In navigation of the Internet using a web browser, there is often generated a conversion to another web site using hypertext function. In this conversion, the conversion speed is greatly fast in case of super high speed Internet service. With modems most of the netizens are using, however, the screen conversion speed is not so fast that clients should wait tediously for a period of time during which an icon displaying screen states operates for a long period time (icon of hourglass or alarm clock is displayed as initial set vale in the window).

During the waiting period for downloading of data file or changing of web browser screen, the clients should spend boring time because they cannot do anything else but waiting. In the prior art, only one of the downloading state displaying graph, hourglass and alarm clock was displayed on the screen during the waiting period, resulting in no advertising effect.

### SUMMARY OF THE INVENTION

It is, therefore, an object of the present invention to provide advertising systems and methods using interval on the Internet, which display an advertisement provided by a specific advertiser in the interval during which a data file is downloaded from an opened data source or a specific company's data source which exist on the Internet or a wet page is changed according to hypertext function on a web browser, thereby promoting advertising effect using the Internet. .

To accomplish the object of the present invention, there is provided an advertising method using file download, in which, upon clicking on a download button for receiving data from an opened data source or a specific company's data source which exist on the Internet, a corresponding data file is transmitted to a corresponding client's computer and, simultaneously, an advertisement program provided by a

specific advertiser is outputted to the computer, thereby displaying corresponding advertisement on the monitor of the client's computer while displaying downloading state of the data file thereon.

To accomplish the object of the present invention, there is also provided an  
5 advertising method using a web browser screen, in which, upon clicking on a  
hypertext address for the purpose of conversion from a web browser screen into  
another Internet site, the clicked address is searched and, simultaneously, an adverting  
program provided by a specific advertiser is performed to display corresponding  
advertisement on the monitor of a client's computer until the screen of the clicked  
10 address is displayed thereon.

According to an aspect of the present invention, there is provided an  
advertising system using interval, which employs a client PC, a server, and an opened  
network connecting the client PC and the server to each other, wherein the server  
comprises: an advertisement database for storing advertisements to be displayed on the  
15 monitor of the client PC; a display module for detecting that the client PC downloads a  
file from the server, and displaying one of the advertisements stored in the  
advertisement database on the monitor of the client PC; and a restoration module for  
detecting a specific state during the download and, upon detection of the specific state,  
stopping the advertisement being displayed by the display module.

20 According to another aspect of the present invention, there is provided an  
advertising system using interval which employs a client PC, a server, and an opened  
network connecting the client PC and the server to each other, wherein: the server has a  
database for storing the original texts of advertisements to be displayed on the monitor  
of the client PC; the client PC comprises: an advertisement database for storing

advertisements downloaded from the database of the server; a display module for detecting that the client PC downloads a file from the server, and displaying one of the advertisements stored in the advertisement database on the monitor of the client PC; and a restoration module for detecting a specific state during the download and, upon  
5 detection of the specific state, stopping the advertisement being displayed by the display module; and the server or client PC has an advertisement transmission module for transmitting the advertisement from the database of the server to store in the advertisement database of the client PC when the client PC accesses the server through the opened network or downloads a specific file from other servers through the opened  
10 network.

The specific state corresponds to the state that the download has been completed.

According to still another aspect of the present invention, there is provided an advertising system using interval which employs a client PC, a server, and an opened  
15 network connecting the client PC and the server to each other, wherein the server comprises: an advertisement database for storing advertisements to be displayed on the monitor of the client PC; a display module for detecting that the client PC is accessing a specific web page of the server or detecting that the client PC is navigating from the specific web page of the server to another web page or to a web page of another server,  
20 and displaying one of the advertisements stored in the advertisement database of the client PC on the monitor of the client PC; and a restoration module for detecting a specific state during the access or navigation performed by the client PC and, upon detection of the specific state, stopping the advertisement being displayed by the display module.

According to yet another aspect of the present invention, there is provided an advertising system using interval which employs a client PC, a server, and an opened network connecting the client PC and the server to each other, wherein: the server has a database for storing the original texts of advertisements to be displayed on the monitor  
5 of the client PC; the client PC comprises: an advertisement database for storing advertisements downloaded from the database of the server; a display module for detecting that the client PC is accessing a specific web page of the server or detecting that the client PC is navigating from the specific web page of the server to another web page or to a web page of another server, and displaying one of the advertisements stored  
10 in the advertisement database of the client PC on the monitor of the client PC; and a restoration module for detecting a specific state during the access or navigation performed by the client PC and, upon detection of the specific state, stopping the advertisement being displayed by the display module; and the server or client PC has an advertisement transmission module for transmitting the advertisement from the database  
15 of the server to store in the advertisement database of the client PC when the client PC accesses the server through the opened network or accesses another web server through the opened network.

The specific state corresponds to the state that the access or navigation perform by the client PC has been completed 80% - 100%.

20 According to a different aspect of the present invention, there is provided an advertising method using interval which employs a client PC, a server, and an opened network connecting the client PC and the server to each other, the method comprising the steps of: the client PC, connected to the opened network, downloading a specific file from the server; detecting the downloading state and displaying an advertisement on the

monitor of the client PC; and stopping the advertisement being displayed upon detection of a specific state during downloading of the file.

The specific state corresponds to the state that the download is completed.

According to another different aspect of the present invention, there is provided  
5 an advertising method using interval which employs a client PC, a server, and an opened network connecting the client PC and the server to each other, the method comprising the steps of: the client PC, connected to the opened network, navigating from a web page of a specific server to another web page thereof or to a web page of another server; detecting starting of the navigation and displaying an advertisement on  
10 the monitor of the client PC; and stopping the advertisement being displayed upon detection of a specific state during the navigation.

The specific state corresponds to the state that the navigation has been completed 80% - 100%.

According to still another different aspect of the present invention, there is  
15 provided an advertising method using interval when a web browser of a client PC displays a web page off-line, the method comprising the steps of: the client PC navigating from a specific web page to another web page; detecting starting of the navigation and displaying an advertisement on the monitor of the client PC; and stopping the advertisement being displayed upon detection of a specific state during the  
20 navigation.

The specific state corresponds to the state that the navigation has been completed 80% - 100%.

According to the present invention, an advertisement provided by a specific advertiser is displayed in the interval during which a data file is downloaded from an



opened data source or a specific company's data source which exist on the Internet or a wet page is changed according to hypertext function on a web browser, thereby promoting advertising effect using the Internet. .

### **BRIEF DESCRIPTION OF THE DRAWINGS**

5        FIG. 1 shows an advertisement displayed during downloading of a data file in accordance with the present invention;

FIG. 2 shows a variation in the state of a screen displayed during changing of a web browser screen;

FIG. 3 shows an advertisement displayed during changing of a web browser  
10 screen; and

FIGS. 4A and 4B are flow charts for explaining advertising methods according to the present invention.

### **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

With reference to the attached drawings, a preferred embodiment of the present  
15 invention is described below in detail.

An advertising method according to the present invention displays an advertisement on a client's monitor screen while displaying a percentage sign or a bar graph indicating file downloading status when the client performs a file downloading function which is frequently used by netizens in navigation of the Internet, to promote  
20 advertising effect. Furthermore, an advertising method of the present invention displays an advertisement in the interval during which a web browser screen is changed, to raise advertising effect. The advertisements displayed according to the advertising methods of the present invention are necessarily seen to netizens when they navigate on the Internet using web browsers or download data files from data

sources existing on the Internet, resulting in satisfactory advertising effect.

The advertising method using the interval during which file download is performed will be explained first. Sites that Internet users can meet frequently when they navigate web sites on the Internet are shareware sites. These sites provide a function of downloading files free to the users. During downloading, a window 30 is displayed on a main screen 20 of a web browser 10 to indicate file downloading status, as shown in the home page of FIG. 1. According to the present invention, an advertising display window 40 is activated during downloading of the files, to display an advertisement provided by a specific advertiser. While the advertisement is displayed, only the window 30 and the advertisement display window 40 are displayed without change of screen. Thus, the advertisement is recognized by clients more clearly than other conventional advertisements. Even during displaying of the advertisement, the file download status is displayed on a part of the screen, which is the same as in conventional file downloading processes.

The advertisement can be displayed by two methods. The first one is to transmit an advertising program from a wet site which provides files free to a client's computer to display the advertisement on its monitor. The second one is to include an advertising function in the web browser such as Netscape or Internet explorer and detect starting of file download, to display an advertisement previously stored.

A free file providing site producer or web browser producer can induce an advertisement from a specific advertiser and produce it with the advertising rate provided by the advertiser. In the advertising method using the file providing site, the content of an advertisement displayed is replaced with other ones to change the advertisement. The advertising method using the web browser, on the other hand,

transmits a file to replace the previous file to change the advertisement.

Upon completion of downloading of a file, the free file providing site stops output of the advertising program to display the previous screen, thereby restoring to the original state. Also, the advertisement included in the web browser is interrupted  
5 and the previous screen is displayed. This process is shown in FIG. 4A. Recognition of download command is performed in both of the file providing site and the web browser.

It is obvious to those skilled in the art that the advertisement displayed in the advertisement display window 40 is realized by flickering specific lines, for example,  
10 "Symbol of Technology, Hana, Hana technology creation Co., Ltd.", or shown in a figure or logo using Java script and so on. This can be accomplished using conventional techniques. Upon completion of file download, the advertisement display window 40 and downloading status indicating window 30 disappear and the home page of FIG. 1 is displayed on the monitor screen.

15 The advertising method using the web browser screen according to the present invention is constructed in such a manner that, upon clicking on a hypertext address for the purpose of changing the web browser screen into other Internet sites, the clicked address is searched and, simultaneously, an advertising program provided by a specific advertiser is performed to display corresponding advertisement on a client's  
20 computer monitor until the screen of the clicked address is displayed thereon.

A conventional web browser screen changing process is explained below with reference to FIG. 2. When a user moves the cursor to a line having hypertext function while reading a certain web page, the cursor is converted into a hand-shaped icon (not shown) according to characteristic of corresponding web browser the user is using. In

FIG. 2, A, B, C, D and E of the download home page are the hypertext lines. Upon clicking a mouse in the state that the cursor has been changed into the hand-shaped icon at a certain line, the cursor indicating that current program is operating is converted into a form of hourglass (or alarm clock), as shown in the middle of FIG. 2.

5           The main controller of the client's computer transmits a signal to the web site designated by the client and receives a signal from the web site to display corresponding web page on the monitor screen of the client's computer. At this time, when the contents of the web page are rapidly transmitted because of fast transmission speed on a communication line, the hourglass-shaped cursor stops its operation to  
10 disappear, displaying the new web page. In FIG. 2, the right one is the screen 60 of the new web page displaying the Netscape home page. However, in case of slow communication speed, the hourglass cursor continues for a long period of time. The present invention displays an advertisement instead of the hourglass cursor, to promote advertising effect.

15           Referring to FIG. 3, when the client accesses the Netscape home page using the hypertext function at the download home page, the advertisement display window 40 as shown in the middle of the FIG. 3 is displayed on the monitor screen while receiving a file from the Netscape home page. It is obvious to those skilled in the art that the advertisement displayed in the advertisement display window 40 is also  
20 realized by flickering a specific line, for example, "Symbol of Technology, Hana, Hana technology creation Co., Ltd.", or shown in a figure or logo using Java script and so on. This can be accomplished using conventional techniques. This advertising method is shown in FIG. 4B.

In the advertising method using the web browser screen according to the

present invention, the advertisement can be provided by both of web page providing sites and web browser producers as in the method using the file download. That is, in case of the advertising method using the interval during which the web browser screen is changed, it can be programmed that an instantaneous image advertisement produced  
5 by a home page producer is displayed during moving to the lower or upper portion in the same home page. Further, in case of navigation from a main home page to another main home page, it can be programmed that an advertisement produced by the web browser producer is displayed during the navigation.

Upon completion of changing of the home page, the line of 'completion of  
10 transmission' is displayed at the lower part of the screen. Simultaneously, the advertisement being displayed on the screen disappears and the new home page is displayed thereon. This corresponds to the screen 60 shown at the right of FIG. 3.

In case where the advertisement is produced to be included in the web browser, it is possible to distribute the web browser free or with a discounted price to promote  
15 advertising effect. In this case, with the increase in the number of netizens according to free distribution of the web browser, the advertising effect raises remarkably.

While certain embodiments and details have been shown for the purpose of illustrating the present invention, it will be apparent to those skilled in the art that various changes and modifications may be made herein without departing from the  
20 spirit or scope of the invention.

**WHAT IS CLAIMED IS:**

1. An advertising system using interval which employs a client PC, a server, and an opened network connecting the client PC and the server to each other,  
5 wherein the server comprises:
  - an advertisement database for storing advertisements to be displayed on the monitor of the client PC;
  - a display module for detecting that the client PC downloads a file from the server, and displaying one of the advertisements stored in the advertisement database on  
10 the monitor of the client PC; and
  - a restoration module for detecting a specific state during the download and, upon detection of the specific state, stopping the advertisement being displayed by the display module.
- 15 2. An advertising system using interval which employs a client PC, a server, and an opened network connecting the client PC and the server to each other, wherein:
  - the server has a database for storing the original texts of advertisements to be displayed on the monitor of the client PC;
  - 20 the client PC comprises:
    - an advertisement database for storing advertisements downloaded from the database of the server;
    - a display module for detecting that the client PC downloads a file from the server, and displaying one of the advertisements stored in the advertisement database on

the monitor of the client PC; and

a restoration module for detecting a specific state during the download and, upon detection of the specific state, stopping the advertisement being displayed by the display module; and

5 the server or client PC has an advertisement transmission module for transmitting the advertisement from the database of the server to store in the advertisement database of the client PC when the client PC accesses the server through the opened network or downloads a specific file from other servers through the opened network.

10

3. The advertising system as claimed in claim 1 or 2, wherein the specific state corresponds to the state that the download has been completed.

4. An advertising system using interval which employs a client PC, a  
15 server, and an opened network connecting the client PC and the server to each other, wherein the server comprises:

an advertisement database for storing advertisements to be displayed on the monitor of the client PC;

a display module for detecting that the client PC is accessing a specific web  
20 page of the server or detecting that the client PC is navigating from the specific web page of the server to another web page or to a web page of another server, and displaying one of the advertisements stored in the advertisement database of the client PC on the monitor of the client PC; and

a restoration module for detecting a specific state during the access or

navigation performed by the client PC and, upon detection of the specific state, stopping the advertisement being displayed by the display module.

5. An advertising system using interval which employs a client PC, a server, and an opened network connecting the client PC and the server to each other, 5 wherein:

the server has a database for storing the original texts of advertisements to be displayed on the monitor of the client PC;

the client PC comprises:

an advertisement database for storing advertisements downloaded from the 10 database of the server;

a display module for detecting that the client PC is accessing a specific web page of the server or detecting that the client PC is navigating from the specific web page of the server to another web page or to a web page of another server, and displaying one of the advertisements stored in the advertisement database of the client 15 PC on the monitor of the client PC; and

a restoration module for detecting a specific state during the access or navigation performed by the client PC and, upon detection of the specific state, stopping the advertisement being displayed by the display module; and

the server or client PC has an advertisement transmission module for 20 transmitting the advertisement from the database of the server to store in the advertisement database of the client PC when the client PC accesses the server through the opened network or accesses another web server through the opened network.

6. The advertising system claimed in claim 4 or 5, wherein the specific



state corresponds to the state that the access or navigation perform by the client PC has been completed 80% - 100%.

7. An advertising method using interval which employs a client PC, a  
5 server, and an opened network connecting the client PC and the server to each other, the method comprising the steps of:

the client PC, connected to the opened network, downloading a specific file  
from the server;

detecting the downloading state and displaying an advertisement on the monitor  
10 of the client PC; and

stopping the advertisement being displayed upon detection of a specific state  
during downloading of the file.

8. The advertising method as claimed in claim 7, wherein the specific  
15 state corresponds to the state that the download is completed.

9. An advertising method using interval which employs a client PC, a  
server, and an opened network connecting the client PC and the server to each other, the  
method comprising the steps of:

20 the client PC, connected to the opened network, navigating from a web page of  
a specific server to another web page thereof or to a web page of another server;

detecting starting of the navigation and displaying an advertisement on the  
monitor of the client PC; and

stopping the advertisement being displayed upon detection of a specific state

during the navigation.

10. The advertising method as claimed in claim 9, wherein the specific state corresponds to the state that the navigation has been completed 80% - 100%.

5

11. An advertising method using interval when a web browser of a client PC displays a web page off-line, the method comprising the steps of:

the client PC navigating from a specific web page to another web page;

detecting starting of the navigation and displaying an advertisement on the

10 monitor of the client PC; and

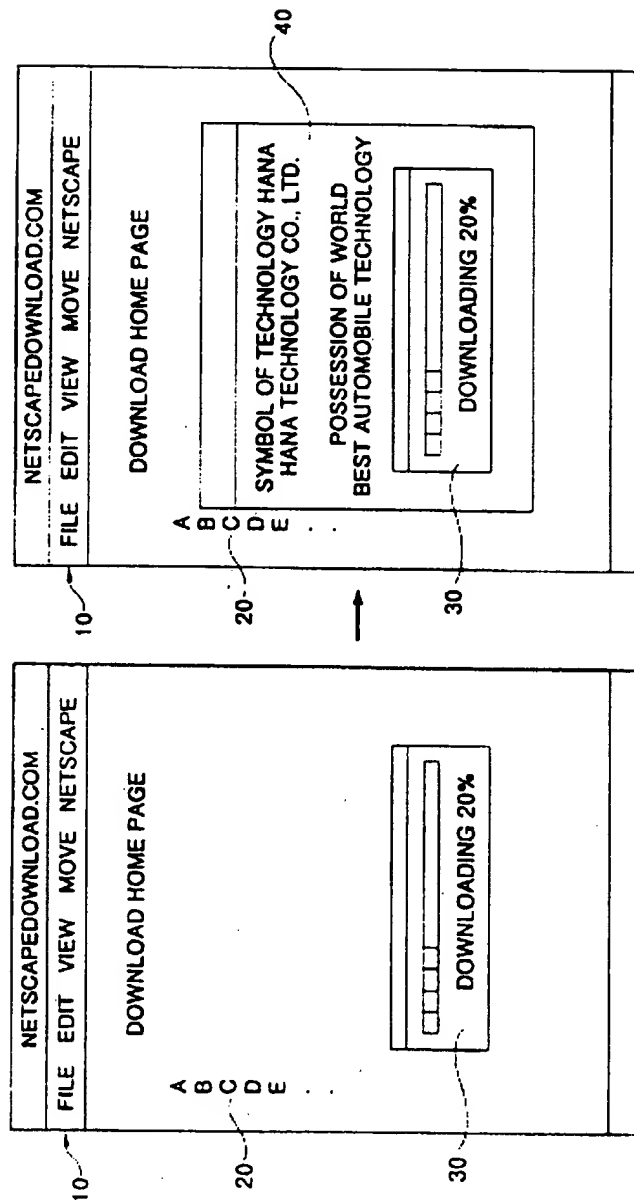
stopping the advertisement being displayed upon detection of a specific state during the navigation.

12. The advertising method as claimed in claim 11, wherein the specific state corresponds to the state that the navigation has been completed 80% - 100%.

15

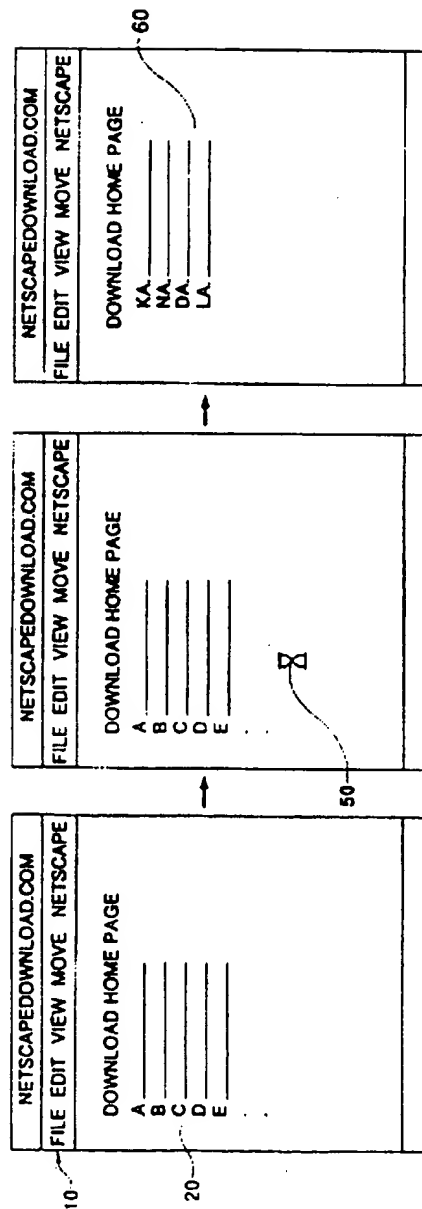
1/5

FIG. 1



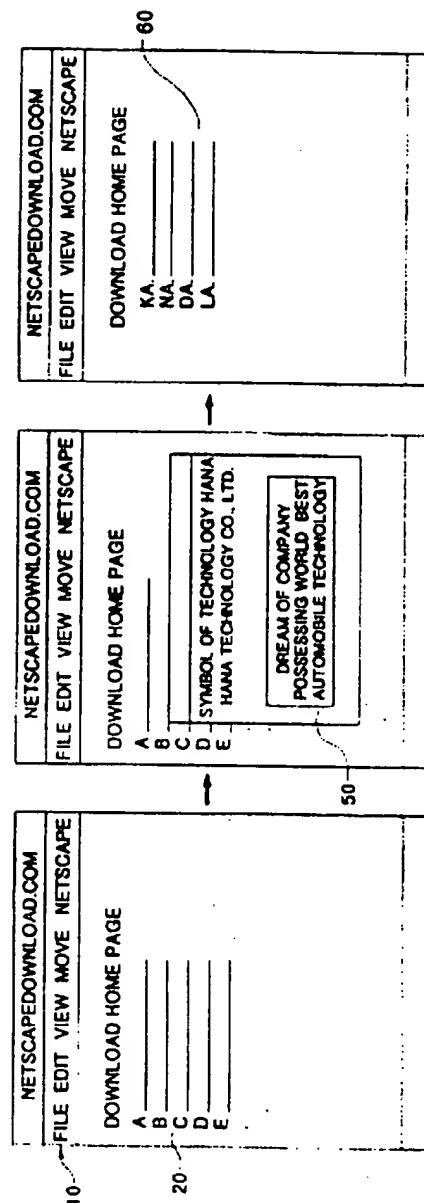
2/5

FIG. 2



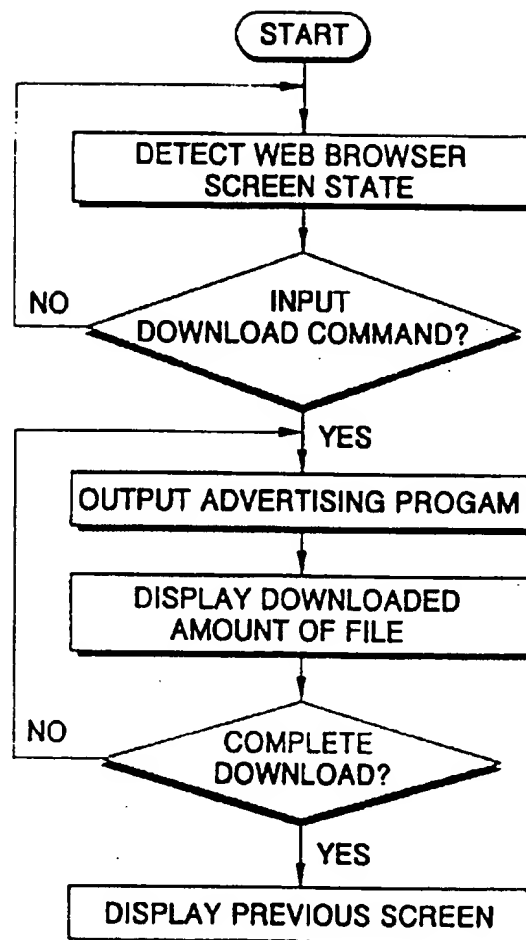
3/5

FIG. 3



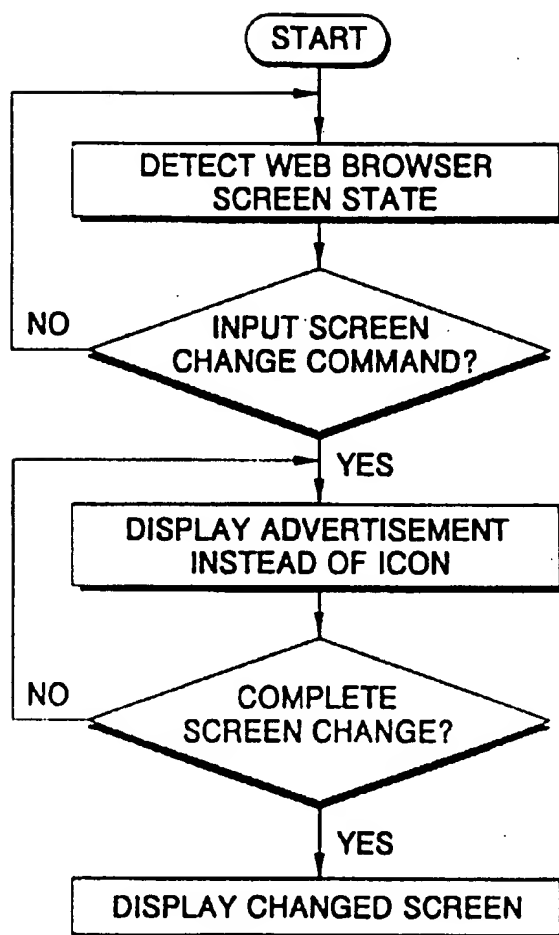
4/5

FIG. 4a



5/5

FIG. 5b



## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR00/00370

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 G06F 17/60**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC7 G06F 17/60, IPC7 G06F 19/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 10-320336 A (ADDRESS INTERNATIONAL CO) 4. DECEMBER. 1998 FIG 1, 3, 4, 8 ABSTRACT, CLAIMS1-9	1-11
Y	WO 98/47090 A (SONY ELECTRONICS, INC.) 22 October 1998 ABSTRACT, FIG2,3,4,5,6, CLAIMS1-16	1-11
A	JP 10-312344 A (LUCENT TECH. CO) 24. NOVEMBER. 1998 ABSTRACT, FIG1,2,3,4,5,6 CLAIMS1-6	1-5

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

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Date of the actual completion of the international search

24 AUGUST 2000 (24.08.2000)

Date of mailing of the international search report

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